

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
Item #9 (Rev. 1)
AGENDA ID #14564
RESOLUTION E-4757
January 28, 2016

ENERGY DIVISION

R E S O L U T I O N

Resolution E-4757. San Diego Gas and Electric Company's (U 902-E) (SDG&E's) Request for Approval of a New Electric Sample Form for Street Lighting Pilot Program for Network Controlled Dimmable Streetlight Systems.

PROPOSED OUTCOME:

- This Resolution approves SDG&E's pilot program establishing rate adjustments for network controlled adaptive streetlight systems.

SAFETY CONSIDERATIONS:

- This pilot program involves the dimming of street lights while maintaining a required level of light output, therefore, there may be safety considerations for this pilot.

ESTIMATED COST:

- This pilot program is intended to provide a testing period prior to a larger scale launch in SDG&E's service territory. The results of this pilot and any estimated cost would likely be addressed in the rate design proceeding for SDG&E's 2016 Phase 2 General Rate Case.

By SDG&E Advice Letter 2665-E Filed on November 10, 2014.

SUMMARY

This Resolution approves SDG&E's sample form 106-39140, as modified, to establish a pilot program that allows rate adjustments for network controlled adaptive streetlight systems. This is a deviation from the standard provision of

electric rate schedule LS-2 “Lighting: Street and Highway Customer Owned Installations.”

BACKGROUND

On November 10, 2014, San Diego Gas and Electric (SDG&E) filed AL 2665-E requesting approval of a new electric sample form 106-39140 Agreement for Street Lighting (Schedule LS-2) Pilot Program for Network Controlled Dimmable Streetlight Systems. The California City-County Street Light Association (CAL-SLA) filed a protest on November 26, 2014 and the City of San Diego filed a protest on December 1, 2014. On December 8, 2014, SDG&E filed its Reply to Protest of SDG&E AL 2665-E.

Commission Staff submitted the first suspension notice on December 10, 2014 and filed the second suspension notice April 6, 2015.

Customers who own their street lights are on the electric rate schedule LS-2 “Lighting: Street and Highway Customer Owned Installations.” Current unmetered streetlight tariffs specify timed or photo-controlled operation at constant wattage level. Photo-controlled usage is based on the assumed average daily time below a certain natural light level at given latitude over a year. The programming for the current LS-2 rate schedule does not allow for direct billing of varying energy usage as would be needed for network controlled adaptive lights.

This pilot program would allow customers with network controlled streetlights to be billed at reduced commodity rates based on the estimated energy savings for the dimmed street lights.

The Commission approved a street light pilot in Pacific Gas & Electric’s (PG&E’s) territory in Resolution E-4421 on September 22, 2011. However, the PG&E pilot program adopted in Resolution E-4421 did not mandate the lighting levels or restrict the use of lights outside the dusk to dawn periods.

NOTICE

Notice of AL 2665-E was made via electronic or mailed copies to utilities and interested parties in A.11-10-002. SDG&E states that a copy of the Advice Letter was mailed and distributed in accordance with Section 4 of General Order 96-B.

PROTESTS

Advice Letter AL 2665-E was timely protested by California City-County Street Light Association (CAL-SLA) and the City of San Diego. SDG&E responded to the protests of CAL-SLA and the City of San Diego on December 8, 2014.

The following is a more detailed summary of the major issues raised in the protests:

California City-County Street Light Association

CAL-SLA raised three primary issues in their protest of AL 2665-E:

1. The AL should clarify if the term “customer” includes counties and special districts.
2. The AL is too restrictive and excludes smaller customers from participating by requiring the customer have at least 300 network controlled streetlights.
3. The AL requirement that customers develop a fixed dimming schedule that may only be adjusted once a year is not flexible enough and negates the benefits of a controlled street light.

City of San Diego

The City of San Diego raised six issues in their protest of AL 2665-E:

1. The AL unreasonably restricts eligible lights to a fixed dimming schedule that can only be changed one time per year.
2. The AL sets customers up for disqualification for using lights outside of the dusk to dawn period, thereby removing the incentive for customers to participate.
3. Section 8.a.iii implies that *all* customer accounts would be suspended if there is more than a 2% error in the data of any account. This should be account specific.
4. Section 5a is vague and implies that all lights will default to the maximum nameplate wattage if there is an error found in one account. This should be account specific.

5. Section 7 is vague and should clarify who is responsible for paying for the audit. Also, the advance notice for a site visit should be extended to 5 working days instead of 48 hours.
6. Section 8.b is overbroad and should be account specific.

DISCUSSION

Commission staff has reviewed the protests and SDG&E's responses.

Of the nine items raised by CAL-SLA and the City of San Diego, SDG&E's reply agrees with five of them. These items are discussed first, followed by the four remaining items.

The following table identifies these five protested issues and summarizes SDG&E's response and the corresponding changes to Form 106-39140:

Protest #	Protest	SDG&E Response	Changes to Form 106-39140
CAL-SLA 1	The AL should clarify if the term "customer" includes counties and special districts.	SDG&E agrees and will clarify that <i>any</i> customer is eligible to participate.	Update customer definition on page 1 of 7 at the first mention of "customer" and in Exhibit A, Section II "Audit Requirement" and Section III "Customer Eligibility Requirements for Pilot Program Participation."
CAL-SLA 2	The AL is too restrictive and excludes smaller customers from participating by requiring the customer have at least 300 network controlled streetlights.	SDG&E agrees and will set the system limit to 50 network controlled streetlights instead of 300, thereby allowing smaller customers to participate.	Exhibit A, Section III (A), "Customer Eligibility Requirements for Pilot Program Participation," should be updated to read, "Each customer must have installed at least 50 public streetlights with a working remote control/monitoring system."
City of SD 3	Section 8.a.ii implies that <i>all</i> customer accounts would be suspended if there is more than a 2% error in the data of any account. This should be account	SDG&E agrees with this recommendation and will revise the section to be account specific.	Page 4 of 7, Section 8.a.ii should be modified to read, "...the Company reserves the right in its sole

	specific.		discretion to suspend pilot participation for the specific account in question for the customer.”
City of SD 4	Section 5a is vague and implies that all lights will default to the maximum nameplate wattage if there is an error found in one account.	SDG&E agrees with this recommendation and will revise the section to be light specific.	Page 2 of 7, Section 5 a should be modified to read, “...the Company will default the specific light in question only to the maximum luminaire nameplate wattage.”
City of SD 5	Section 7 is vague and should clarify who is responsible for paying for the audit. Also, the advance notice for a site visit should be extended to 5 working days instead of 48 hours.	SDG&E clarifies that the customer will pay for the audit and agrees to provide 5 working days advanced notice before an audit.	Page 3 of 7, Section 7 should be modified to read, “...shall provide the Customer with no less than 5 working days advance notice of any intended site visit.”

SDG&E’s reply to protest does not agree with the following four of the nine protested items:

CAL-SLA item #3 and City of San Diego item #1 both protest the requirement to only allow the dimmable schedule to be changed once a year.

SDG&E cites the extensive costs associated with manually changing and calculating new consumption levels and the corresponding bill adjustments. SDG&E also notes that the scope of this advice letter filing is to set the stage for testing of these components for functionality before “opening the gate to real time dimming which is not currently supported by the existing LS-2 rate schedule.”

SDG&E states the pilot will test and collect data which could be used for proper rate design in a subsequent phase of the GRC Phase 2 proceeding. Commission staff also discussed this issue with the City of San Diego and they are in agreement with SDG&E’s response and are supportive of this advice letter moving forward.

The City of San Diego item #2 protests the requirement that customers will be disqualified for dimming lights outside of the dusk to dawn period. SDG&E clarifies that the dusk and dawn times are part of the currently existing LS-2 tariff and that this advice letter does not change that existing rule. The dimming

change is meant to be used when studies show that the light output could be maintained even while energy consumption decreases.

In its comments to the resolution, the City of San Diego points out that if a lamp in the pilot operates outside of the dawn to dusk period, this should not be grounds for disqualification, since this is when compensation is assured for its usage. *Since streetlights operate on photo-sensors, generally speaking the lamps will be operating during the dawn to dusk period, but for a variety of reasons, instances where this is not the case can and do occur.* Commission staff agrees with the City of San Diego that pilot participants should not be disqualified for falling outside of the dusk to dawn period.

The City of San Diego item #6 protests that Section 8.b is overbroad and should be account specific. SDG&E states that this section allows SDG&E to react to audit results and either suspend, cancel or reinstate customers, regardless of which account they come from. SDGE clarified that other sections are account specific, but Section 8b allows SDG&E to take action, should there be some systemic issue. In its comments to the resolution, the City of San Diego maintains that suspension from the pilot should be account specific and that any retroactive billing should be limited to the periods indicated by the audit to actually reflect discrepancies. Commission staff agrees suspension from the pilot should be account specific and that any corrective action should be limited to the periods indicated by the audit. SDG&E still has the ability to take action on specific accounts should the audit findings identify any systemic issues.

COMMENTS

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today.

On January 12, 2016, the City of San Diego and Light Moves filed comments in response to this resolution.

City of San Diego

The City of San Diego is supportive of the resolution, and acknowledges that some of their concerns have been addressed, but raises three issues with the resolution:

1. While the City of San Diego agrees that a pilot should be adopted, they are concerned that the resolution may lead to a lengthy pilot that delays adoption of an adaptive street lighting rate in the current General Rate Case, A.15-04-012. The City of San Diego also does not believe the costs are as extensive as claimed by SDG&E. The City of San Diego notes that SDG&E's amended application in A.15-04-012 "does not present any adaptive street light rate nor does it provide any indication that SDG&E plans, *with certainty*, to present such a rate in that proceeding." The City of San Diego suggests this resolution direct SDG&E to promptly engage in workshops in A.15-04-012 to present a dynamic street lighting rate.

Commission staff notes that on page 5 of the City of San Diego's January 6, 2016 protest in A.15-04-012, the City of San Diego already requested that the scoping memo in that proceeding schedule workshops on the adoption of a dynamic street lighting rate in A.15-04-012; therefore, the request to hold workshops should be addressed in A.15-04-012. However, to address the concern of lengthy pilot delays, this Resolution will direct SDG&E to submit a plan for when and how the data collected in this pilot will be used in the current general rate case. SDG&E should also report on the cost of this pilot in A.15-04-012.

2. The City of San Diego does not agree with the requirement of Section 8.a.ii and points out that if a lamp in the pilot operates a few minutes or even a few hours outside of the dawn to dusk period, this should not be grounds for disqualification, since this is when compensation is assured for its usage.

Commission staff agrees with the City of San Diego that pilot participants should not be disqualified for falling outside of the dusk to dawn period, and the Resolution has been modified accordingly.

3. The City of San Diego does not agree with the requirement of Section 8.b stating that the requirements are overbroad. The City of San Diego maintains that suspension from the pilot should be account specific and that any retroactive billing should be limited to the periods indicated by the audit to actually reflect discrepancies.

Commission staff agrees suspension from the pilot should be account specific and that any corrective action should be limited to the periods indicated by the audit. SDG&E still has the ability to take action on specific accounts should the audit findings prove any systemic issues.

Light Moves

Light Moves raised five comments to this Resolution:

1. The safety considerations section should make the following modifications:
 - Use the term “level of light output” instead of “area of light output;
 - Include there may be safety concerns as the pilot involves brightening and dimming of streetlights; and
 - Use the term “adaptive” or “network controlled” rather than the term “dimmable.”

Commission staff modified the resolution to include this language.

2. There was an additional letter submitted in response to the advice letter. The letter called for the creation of new tariff structures to be proactively developed for network controlled lighting systems and allowing for non-lighting sensors (such as weather and traffic data) should be given as high a priority by regulated utilities as each of the three did when they converted other customers to “network controlled wireless meters” to allow energy monitoring, energy savings and improved utility operations.

Commission staff notes the letter is now on the record with Light Move's January 6, 2016 comments. The issues raised are more overarching and should be considered in broader street light proceedings.

3. The PG&E pilot program adopted in Resolution E-4421 did not mandate the lighting levels or restrict the use of lights outside the dusk to dawn periods.

Commission staff modified the resolution to include this information.

4. San Diego should be given latitude to make adjustments to lighting levels under certain emergency or non-emergency circumstances.

Commission staff believes the issue of additional adjustments to lighting levels should be discussed with parties during the implementation of the pilot program and should be an outcome of the pilot program.

5. Light Moves does not believe SDG&E should incur extensive costs with "manually changing and calculating new consumption levels and corresponding bill adjustments" since this process is automated and remote through the wireless network and approved meter on the street light head.

In order to gather information on the cost of this pilot program, this Resolution will require SDG&E to report on the cost of this pilot in A.15-04-012.

FINDINGS

1. Current Schedule LS-2, Customer-Owned Street and Highway Lighting, is for unmetered constant consumption at a predetermined wattage for a predetermined number of hours.

2. Emerging adaptive street lighting technology provides operational, maintenance and energy saving advantages.
3. This program is a pilot program meant to test the billing systems and to collect data that could be used for a larger scale effort.
4. The pilot program should not preclude smaller customers from participating in the pilot; therefore, customers with 50 network controlled street lights should be able to participate.
5. The pilot programs should provide customers adequate advanced notice prior to a site audit; therefore, SDG&E will provide customers five days advanced notice prior to a site audit.
6. The pilot program should not disqualify participants if their street lights operate outside the dawn to dusk period.
7. Suspension from the pilot program should be account specific and that any corrective action should be limited to the periods indicated by the audit.
8. SDG&E Form 106-39140 should be updated, as modified herein.
9. Pending the results of the pilot, a new dimmable streetlight rate schedule may be developed under SDG&E's current General Rate Case.
10. SDG&E should submit a plan in A.15-04-012 for when and how the data collected in this pilot will be used in the current General Rate Case. The due date for this plan will be determined in A.15-04-012.
11. In order to gather information on the cost of this pilot program, SDG&E should report on the cost of this pilot in A.15-04-012. The due date for this report will be determined in A.15-04-012.
12. Pursuant to G.O. 96-B, Rules 5.1, and 8.2.3, a Tier 3 AL is the correct process to request the deviation from tariff and reduced charge for a governmental customer.

THEREFORE IT IS ORDERED THAT:

1. The request of SDG&E for Approval of Electric Sample Form for Street Lighting Pilot Program for Network Controlled Dimmable Streetlight Systems, as requested in Advice Letter AL 2665-E, is approved, as modified herein.
2. SDG&E is required to submit a plan in A.15-04-012 for when and how the data collected in this pilot will be used in the current General Rate Case. The due date for this plan will be determined in A.15-04-012.
3. In order to gather information on the cost of this pilot program, SDG&E is required to report on the cost of this pilot in A.15-04-012. The due date for this report will be determined in A.15-04-012.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on January 28, 2016; the following Commissioners voting favorably thereon:

TIMOTHY J. SULLIVAN
Executive Director